

AMENDMENTS TO THE CLAIMS

In the Claims

84. (Currently amended): An isolated DNA comprising a sequence encoding a protein kinase having the amino acid sequence depicted in SEQ ID No.3, ~~SEQ ID No. 21 or SEQ ID No. 33, or a protein having an amino acid sequence which is at least 90% similar thereto and which hybridizes under stringent washing conditions of 3 x 20 min in 0.5% SSC, 1% SDS at 65° C with~~ said isolated DNA having the sequence depicted in SEQ ID No. 1, SEQ ID No. 2, ~~SEQ ID No. 20, or SEQ ID No. 32 or a DNA sequence which is at least 90% similar to SEQ ID No. 1, SEQ ID No. 2, or SEQ ID No. 32 and which hybridizes under stringent washing conditions of 3 x 20 min in 0.5% SSC, 1 % SDS at 65° C, wherein said amino acid sequence enhances fertilization-independent embryogenesis and encoding a protein kinase having the same activity as the sequences depicted in SEQ ID No. 3, SEQ ID No. 21, or SEQ ID No. 33.~~

85. (Previously amended): The DNA according to claim 84, wherein the protein is a leucine rich repeat receptor like kinase and comprises a ligand binding domain, a proline box, a transmembrane domain, a kinase domain and a protein binding domain.

86. (Previously amended): The DNA according to claim 84, which further encodes a cell membrane targeting sequence.

87. (Currently amended): The DNA according to claim 84, wherein the sequence is modified in that ~~known mRNA instability motifs or polyadenylation signals are removed or codons which are preferred by the plants into which the DNA is to be inserted are used so that expression of the thus modified DNA in the said plant yields a protein having an amino acid sequence which is at least 90% similar to the sequence of that obtained by expression of the unmodified DNA in the organism in which the protein is endogenous.~~

S-137-1103S

88. (Previously amended): An expression vector containing the DNA sequence as claimed in claim 84.

89. (Previously amended): An expression vector according to claim 88, in which the protein encoding region is under expression control of a developmentally regulated or inducible promoter.

90. (Currently amended): An expression vector according to claim 88, wherein the promoter is one of the following: a promoter which regulates expression of SERK genes *in planta*, the carrot chitinase DcEP3-1 gene promoter, the ~~Arabidopsis AtChitIV gene promoter~~, the ~~Arabidopsis~~ LTP-1 gene promoter, the ~~Arabidopsis bel-1 gene promoter~~, the petunia fbp-7 gene promoter, the ~~Arabidopsis ANT gene promoter~~, the promoter of the O126 gene from *Phalaenopsis*, or the ~~Arabidopsis~~ DMC1 promoter, or the pTA7001 inducible promoter.

H3

91. (Cancelled)

92. (Previously amended): A plant cell transformed with the vector of claim 88.

93. (Previously amended): A plant cell transformed with the vector of claim 89.

94. (Previously amended): Plant cell according to claim 92, which is part of a whole plant.

95. (Previously amended): Plant cell according to claim 93, which is part of a whole plant.

96. (Previously amended): Plants transformed with the vector of claim 88, or the seeds or progeny of such plants, wherein said seeds or progeny contain said vector of claim 88.

97. (Previously amended): Plants transformed with the vector of claim 89, or the seeds or progeny of such plants, wherein said seeds or progeny contain said vector of claim 89.